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EXAMINER

SHEN, QUN

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/595,332	<b>Applicant(s)</b> DENNERT ET AL.	
	<b>Examiner</b> QUN SHEN	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-15 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-15 and 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2009 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This is Second Action Final on the merits. Claims 2-15, 17-20 have been amended and are currently pending and have been considered below.

#### ***Priority***

2. Applicant's foreign priority claim for the benefits of German Patent Application No. 103 47617.2 on the basis of 35 U.S.C. 119 a-d & f, filed in the German Patent Office on October 9, 2003 is acknowledged.

#### ***Specification***

3. Applicant's corrections are accepted. Objections are withdrawn.

#### ***Drawings***

4. Fig 2 is objected to because English translation is not completed, which leaves some blocks without any explanation. the unlabeled rectangular boxes shown in the Fig. 2 should be provided with descriptive text. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures

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must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### **Claim Objections**

5. Claim 5 is objected to because of the following informalities: Claim 5 recites "the desired call forwarding target" in lines 3-4 of claim 5, page 7. **"the desired call forwarding target"** is lack of antecedent basis.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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**7. Claims 2-4 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 0101707 A1 Immonen et al. (hereinafter Immonen).**

Claim 1 (cancelled)

Regarding claim 2, Immonen discloses a method to optimize the use of resources of a public telecommunication network during the switching of one or more parallel calls to one or more end devices of a number of end devices that form a multiple-device configuration (abstract – an automatic call distribution method, Figs 1-2), comprising: before a call is delivery, an intelligent call control of the public telecommunications network determines the system statuses of the end devices being called or of identification chips connected to the end devices being called (pg 3, lines 3-4, lines 10-12, status of subscriber) and of the switching facilities involved by polling databases of the end devices being called or the identification chips connected to the corresponding end devices being called (pg 3, lines 15-23, lines 31-35, also pg 5, lines 21 – 28, BSC – mobile service switching center involved with the call) and mobility/profile databases assigned to the switching facilities involved (pg 5, lines 24-34 VLR (visitor location register database – mobility database), whereupon – based on the data on the system statuses of the end devices being called (status of subscriber, see above) or the identification chips connected to such end devices - an optimal call delivery is performed (connect the call, wherein only call attempts promising success are initiated

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(pg 8, line 28 – pg 9, line 7).

Regarding claim 3, Immonen discloses the method according to claim 2, wherein the system statuses of the end devices called or of the identification chips connected to the end devices being called are determined before the actual call delivery (pg 3, lines 1-9, check subscriber status information of the terminal before connecting the call).

Regarding claim 4, Immonen discloses the method according to claim 2, wherein in case it can be derived from the data on the system status that an end device is free to receive a call, the call is first delivered (pg 4, lines 10-18, pg 14, lines 16-22) and that in case the connection is not used, the occupied line is released again to the origin of the connection (pg 9 lines 1 – 3, the caller not replying to the network's announcement about the released number (e.g. caller is not making the call, or connection not being used), CCBS service is removed from the network for the present call (e.g. line is released).

Regarding claim 17, Immonen discloses the method according to claim 3, wherein in case it can be derived from the data on the system status that an end device is free to receive a call, the call is first delivered and that in case the connection is not used, the occupied line is released again to the origin of the connection (see analysis of claim 4, rejected with the same reason).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**8. Claims 5-6, 8-14 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Immonen, in view of US 5,812,639 Bartholomew et al. (hereinafter Bartholomew).**

Regarding claim 5, Immonen discloses the method according to claim 4 but does not expressly disclose the details of call forwarding process, such as wherein in case the call has not been accepted, using the previously determined statuses of the end devices being called or of the pertinent identification chips connected to the corresponding end devices, a direct connection is established to the desired call forwarding target.

Bartholomew teaches different call forwarding approaches including in case the call has

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not been accepted (if no one answers the call for a certain ring count), using the previously determined statuses of the end devices being called (the number of ring count as no answer condition, for example) or of the pertinent identification chips connected to the corresponding end devices, a direct connection is established to the desired call forwarding target (AIN routes the calls directly to the voice mail system). (see Fig 6, col 26, lines 5 – 19, also col 20, lines 43-67).

Therefore, consider both Immonen and Bartholomew's teachings as whole, it would have been obvious to one of skill in the art at the time of invention to incorporate Bartholomew's call forwarding method into Immonen's optimal call distribution system for the benefit of providing an call forwarding system based on pre-determined status information of the subscriber.

Regarding claim 6, Immonen discloses a method to optimize the use of resources of a public telecommunication network during the switching of one or more parallel calls to one or more end devices of a number of end devices that form a multiple-device configuration (see analysis of claim 1), comprising: before a call is delivered an intelligent call control of the public telecommunications network determines the system statuses of the end devices being called or of identification chips connected to the end devices being called and of the switching facilities involved by polling databases of the end devices being called or the identification chips connected to the corresponding end devices being called and mobility/profile databases assigned to the switching facilities involved, whereupon - based on the data on the system statuses of the end devices



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being called or the identification chips connected to such end devices - an optimal call delivery is performed, wherein only call attempts promising success are initiated (**see analysis of claim 2**). Immonen does not expressly disclose wherein call forwarding is initiated in the original switching facility by a central control based on the data from the evaluation of the system statuses of all end devices being called or of the identification chips connected to the end devices being called. Bartholomew, however, teaches a switch based call forwarding approach (Figs 5-6) where call forwarding is facilitated by the switching facility (col 26, lines 5-14, col 41, lines 34 – 38. Note that no switch change is taught by Bartholomew – by default, using the original switching facility for call forwarding). Such switching based call forwarding is based on status information of the subscriber being evaluated (col 20, lines 28 – 37). Therefore, consider both Immonen and Bartholomew's teachings as a whole, it would have been obvious to one of skill in the art at time of invention to modify Immonen's automatic control distribution method by incorporating Bartholomew's teachings on switch based call forwarding approach for convenient call forwarding using common channel signaling.

Regarding claim 8, Immonen as modified discloses a method according to claim 2, wherein during forwarding of a call to an end device a certain occupancy of resources required to complete the call results from the type of the desired call (Bartholomew: abstract, col 5, lines 25-32, one type - telephone line, lines 33-36, another type direct incall line, both can handle call forwarding services) wherein before the call is delivered, an intelligent call control determines the system status of at least one end device being

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called or of the identification chip connected to the at least one end device and of the switching facility or facilities involved (see analysis of claims 2 and 3).

Regarding claim 9, Immonen as modified discloses the method according to claim 8, wherein the system status of at least one end device and of the at least one switching facility is determined by polling the mobility/profile databases of the at least one end device or of the identification chip connected to the at least one end device and of the at least one switching facility involved (Immonen: Fig 1, pg 5, line 16- pg 6, line 2, two databases comprising information on mobile subscribers, HLR and VLR (visitor location registration) of switching facility (MSC)., also pg 6, lines 3 - 30).

Regarding claim 10, Immonen as modified discloses the method according to claim 9, wherein an optimal call delivery is derived from the data on the system status of at least one end device being called, or of the identification chip connected to the at least one end device in such a manner that only call attempts that promise success with the associated occupancy of the corresponding network resources are initiated (see analysis of claim 2 and 8).

Regarding claim 11, Immonen as modified discloses the method according to claim 8, wherein, using the previously determined information, any call attempts expected to fail are eliminated before the actual call delivery (Bartholomew: col 29, lines 27-35, the common channel signaling system determines that the call cannot be completed. The

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attempt to establish a connection is terminated).

Regarding claim 12, Immonen as modified discloses the method according to claim 8, wherein in case it can be derived from the data on the system status that at least one end device is free to receive a call, the call is first delivered and that in case the connection is not used, the occupied line is released again to the origin of the connection (see analysis and rejection of claim 4, rejected with the same reason).

Regarding claim 13, Immonen as modified discloses the method according to claim 12, wherein in case the call has not been accepted, using the previously determined settings of the at least one end device or of the pertinent identification chips connected to the at least one end device, a direct connection is established to the desired call forwarding target (see analysis of claim 5, rejected with the same reason).

Regarding claim 14, Immonen as modified discloses the method according to claim 8, wherein the call forwarding is initiated in the original switching facility by at least one central control based on data from the evaluation of the system status of at least one end device being called or of the identification chip connected to the at least one end device (see analysis of claim 6, also Immonen: pg 2, line 32 – pg 3, line 12, also pg 3, lines 14-35, Bartholomew: spirit of claim 7, a controller ( a central control) arranged separately from the trunks and being connected to at least some of the signal switching

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point (switching facility) for forwarding a message).

**9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Immonen, in view of US 2004/0005910 A1, Tom (hereinafter Tom).**

Regarding claim 7, Immonen discloses a method to optimize the use of resources of a public telecommunication network during the switching of one or more parallel calls to one or more end devices of a number of end devices that form a multiple-device configuration (see analysis of claim 1), comprising: before a call is delivered an intelligent call control of the public telecommunications network determines the system statuses of the end devices being called or of identification chips connected to the end devices being called and of the switching facilities involved by polling databases of the end devices being called or the identification chips connected to the corresponding end devices being called and mobility/profile databases assigned to the switching facilities involved, whereupon - based on the data on the system statuses of the end devices being called or the identification chips connected to such end devices - an optimal call delivery is performed, wherein only call attempts promising success are initiated (see analysis of claim 2). Immonen does not expressly disclose wherein the profile data of the mobility/profile database of the identification chip connected to one end device is synchronized with the profile data of the mobility/profile databases of the identification chips connected to the other end devices. Tom, however, teaches devices with two SIM cards to store user data (e.g. with user profile data bases) which can be

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synchronized (Fig 7, par. 0109). Consider both Immonen and Tom's teachings together, it would have been obvious to one of skill in the art at the time of invention to modify Immonen's device of call control by incorporating Tom's teachings on synchronization of user data profiles of two SIM cards. One would be motivated to do so for providing more convenient call forwarding between end devices with different SIM cards.

**10. claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Immonen, in view of Bartholomew, and further in view of Tom.**

Regarding claim 15, Immonen as modified discloses the method according to claim 8, wherein profile data of the mobility/profile database of the identification chip connected to the at least one end device is synchronized with profile data of the mobility/profile databases of other identification chips connected to the other end devices of a subscriber (Fig 7, pars 0077, 0109).

Claim 16 (cancelled)

**11. Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Immonen, in view of EP 0740482 A1, Proudler et al. (hereinafter Proudler).**

Regarding claims 18-19, Immonen discloses the method according to claims 3-4, wherein call forwarding is initiated in the original switching facility by a central control based on data from the evaluation of the system status of end device being called or of

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the identification chips connected to the end device being called status (see analysis of claims 2, 3 or 4) but does not expressly disclose call forwarding is initiated is initiated with the statuses of all end devices being called or of the identification chips connected to the end devices being called. Proudler, however, teaches a telephone management system for call transfer (forwarding) based operational statuses of all devices (cell phone, cordless phone, answer machine, etc. (Proudler: abstract, Fig 1). Therefore, consider both Immonen and Proudler's teachings as a whole, it would have been obvious to one of skill in the art at the time of invention to expand Immonen's method of initiating call forwarding by incorporating Proudler's teachings in statuses of all end devices involved in the call forwarding processes.

**12. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Immonen, in view of Bartholomew, and further in view of Proudler.**

Regarding claim 20, Immonen as modified discloses the method according to claim 5, wherein call forwarding is initiated in the original switching facility by a central control based on data from the evaluation of the system status of end device being called or of the identification chips connected to the end device being called status (see analysis of claims 2, 3 or 4) but does not expressly disclose call forwarding is initiated is initiated with the statuses of all end devices being called or of the identification chips connected to the end devices being called. Proudler, however, teaches a telephone management system for call transfer (forwarding) based operational statuses of all devices (cell phone, cordless phone, answer machine, etc. (Proudler: abstract, Fig 1). Therefore,

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consider both Immonen and Proudler's teachings as a whole, it would have been obvious to one of skill in the art at the time of invention to expand Immonen's method of initiating call forwarding by incorporating Proudler's teachings in statuses of all end devices involved in the call forwarding processes.

### ***Response to Argument***

13. Applicant's arguments with respect to claims 5-6, 7-15 and 18-20 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues that Immonen fails to disclose the steps of determining the system statuses of both the end devices being called and the switching facilities involved by polling the databases of the end devices and the mobility/profile databases assigned to the switching facilities involved on page 12 of remarks. Applicant's argument is considered but not persuasive. Immonen discloses the step of determining the system statuses of the end devices being called (Immonen: pg 3, lines 15-23, lines 31-35) and the switching facilities involved by polling the databases of the end devices (Immonen: pg 5, lines 21 – 28, BSC – mobile service switching center involved with the call) and mobility/profile databases assigned to the switching facilities involved (Immonen: pg 5, lines 24-34 HLR (home location register) and VLR (visitor location register database – mobility database).

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to QUN SHEN whose telephone number is (571)270-7927. The examiner can normally be reached on Monday through Thursday, 9:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LunYi Lao can be reached on 571-272-7671. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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